



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,245	04/11/2005	Ulrich Komer	1304.065USU	5061

27623 7590 01/29/2007
OHLANDT, GREELEY, RUGGIERO & PERLE, LLP
ONE LANDMARK SQUARE, 10TH FLOOR
STAMFORD, CT 06901

EXAMINER

BODAWALA, DIMPLE N

ART UNIT	PAPER NUMBER
----------	--------------

1722

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/520,245

Applicant(s)

KORNER, ULRICH

Examiner

Dimple N. Bodawala

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 and 29-32 is/are rejected.
- 7) ☒ Claim(s) 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's attorney called the Examiner on January 04th, 2007, to ask for the clarification on certain issues of the previous office action, mailed on December 27th, 2006. For the clarification purposes, this office action is re mailed.

Election/Restrictions

Claims 33 – 34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected a product of plastic plate, there being no allowable generic or linking claim. Election was made **with** traverse in the reply filed on October 17th, 2006.

Response to Arguments

Applicant's election with traverse of a product of plastic plate in the reply filed on October 17th, 2006 is acknowledged. The traversal is on the ground(s) that the claim 33 should not be restricted because claim 33 lacks being related to a single inventive concept under PCT Rules 13.1 and 13.2 because it is alleged that claim 33 is neither anticipated nor obvious from U S 2,816,323. These naked assertions, besides being erroneous, cannot provide a proper basis for asserting that subject matter of claim 33 is disclosed in the cited document and possibly provide a proper legal basis for an election requirement. This is not found persuasive because even though claim 33 does not anticipate by US 2,816,323, however,

Art Unit: 1722

claim 33 lacks the same or corresponding special technical feature, which is required for method of making the product, because the production of the plastic plate as claimed in claim 33, can be made by different apparatus such as Fiber extrusion pack including the split distribution plate (U S Patent Application No. 10/762,472). Additionally, the arguments are found persuasive and, thus, Groups I and II have been fully considered with respect and joined together. Claims 1 – 32 are pending and ready for examination under merit.

The requirement is still deemed proper and is therefore made **FINAL**.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The data sheet disclosed the Information Disclosure Statement, filed on 04/11/2005, however, either references or a PTOL 1449 were not found in the application, filed 04/11/2005. Therefore, Applicant is requested to resubmit the Information Disclosure Statement and copies of cited prior arts for the Examiner's consideration. Applicant is also requested to submit the acknowledgement or receipt, which indicates that Applicant submitted the form 1449, filed on 4/11/2005, cited with all documents or the information, which caused to be listed

for further consideration.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

✓ *Reference Nos. 24 – 26 are missing for figure 4.*

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- ✓ *Reference No. 1b is involved with multiple components such as “semicircular section” (See page 8 line 31) and “circular section” (See page 7, line 11).*
- ✓ *Reference No. 18 is involved with multiple components such as “flat nozzle” (See page 10, line 11) and “a plastic melt” (See page 10, line 15).*
- ✓ *Reference No. 11 is involved with multiple components such as “the melt” (See page 10, line 30) and “the gap” (See page 10, line 35).*

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is vague and indefinite because claim 5 recites the limitation “the temperature controller”, which is insufficient antecedent basis for the limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 – 11, 15 – 16, 27, and 29 – 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Erb (U S Patent No. 3, 594, 863)

As to claims 1 – 11, 15 – 16, 27, and 29 – 32, Erb (' 863) discloses the apparatus for molding plastic shapes in molding recesses formed in a moving endless belt, which comprises the circulating device, which is arranged horizontally by having the endless belt. The circulating device can be adjusted to the take away roll (90). Here, the circulating device comprises the one straight section and one the curved section that is circular (See figures 1 and 2). It also discloses the strips which are arranged on the circulating device (See col.2, lines 9 – 12). The prior art, further discloses the heat-set to adjust the temperature of the device during the formation of the lugs (See col.1, lines 19 – 24), thus inherently disclosing the temperature controller for adjusting the temperature of the shaping strips and the roll.

Furthermore, it teaches that the shapping strips which comprises the molding recess (62) with the neighbouring side walls (50 and 52) for forming an easy shape, contact eachother in the straight section of the circulating device in such a manner that corresponding the molding recess of the neighbouring shaping strips form a closed recess, in the molding recess the molten material is solidified, and the shapping strips open in the curved section of the circulating device for ejecting the molding article with an easy shape. The shaping strips comprises the plurality of strip shaped recess, which are variable and arranged along the circulating device in regualr intervals. It also teaches that the cross section of the recess (62) may be generally rectangular or triangular if so desire with upside down (See Figure 1; and col.4, lines 44 – 55). It further teaches that the molten material is shaped by the extrusion through a slotted nozzle (18) and subsequently passes through at the groove between the circulating device and the take away roll (See col.1 lines 70 – 74). Erb ('863) discloses the strips, which comprises the plurality of individual recess along their width (See col.3 lines 67 – 68). It also discloses that the belt, which contains the shaping strips, is made of suitable material such as steel (See col.3 line 62; and col.4 lines 2 – 6). The device is arranged horizontally and wherein the molten material can be supplied from the top to the mold recess (62) through the nozzle (18) (See col.5, lines 3 – 6).

Furthermore, it discloses the strips (lugs), which are integrally formed therewith on an endless belt that is one side of the device. The lips are shaped to correspond with the belt and to fit into the grooves and over the ridges between the grooves in such manner that molten plastic material will be extruded in form of the strips (See abstract). A portion of the upper reach of the belt (12) is guided over a support plate (36) (See col.5, lines 46 – 48). It also teaches that the take away roll (90) is mounted for rotation about an axis (94) with the ribs meshing with the gap (46). The circumferential surface of each rib will bear upon one of the strips (84) of the plastic product (80) as the latter reaches the point at which the roll (90) is positioned (See col.8 lines 2 – 8). At the point of tangency between roll 996) and take away roll (90) the adhesive coated surface of the web is pressed into the engagement with the exposed surface of the strip portion of all of the plastic products (See col.8, lines 23 – 26).

Claims 1, 3 –4, 6 - 11, 15 – 16, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Gercke et al. (U S Patent No. 2,974,361).

As to claims 1, 3 –4, 6 - 11, 15 – 16, and 27, Gercke ('361) discloses figure 1 of the apparatus for shaping the plastic article which comprises the circulating device and roll (114) that can be adjusted thereon. The circulating device comprises the circular curved section, the straight section, wherein the shaping

strips are arranged on the circulating device, and also the chain (29) (See col.10, lines 54 – 67). It further discloses the device can be arranged vertical parallel longitudinally (See col.4, lines 17 – 20).

It also teaches that the shaping strips (67) comprise the neighboring sidewall of recess for forming the lugs, and plurality of individual recess (45) along their widths. The sidewalls are contacted each other in straight section rest on the wedged – shaped (triangular) support (55 – 56) of the circulating device in such a manner that the corresponding recess of neighboring shaping strips form a closed recess, and open in such a manner with respect to each other when passing from the straight section to curve section for ejecting the lugs (47) or article (See figure 1; col. 5, lines 41 – 55).

Figure 11 discloses the shapes of the recess, which is an upside down truncated cone with respect to the horizontal base plate (22) (See col.4, lines 15 – 20), and also discloses the shaping strips, are variable and/or exchangeable. The shaping strips are arranged in regular intervals along the circulating device, and made of dimensionally stable material such as metal (See col.4, lines 50 – 54).

Furthermore, it discloses the plunger or the shaping strips which contact each other in the straight section that open in such a manner with respect to each other when passing from the straight section to curved section that they released

Art Unit: 1722

the lugs which are formed in the recess, due to the corresponding ratio between the reference diameter of the circulating device and average diameter of the shaping strips (See figure 1; col. 5 lines 28 – 45).

Erb ('863) and/or Gercke ('361) disclose all the claimed structural limitations, and, thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erb ('863) and/or Gercke ('361) in view of Olschewski (U S Patent No. 3,782,875).

Erb ('863) and/or Gercke ('361) disclose all structural limitation as discussed above, but do not disclose the tensioning device.

As to claims 12 – 14, in the analogous art, Olschewski ('875) discloses the apparatus for the continuous manufacture of chipboard, which comprises the circulating device, and steel belt (1) that can be adjusted by means of the tensioning device such as hydraulic device. The stress causes the shaping strips to contact each other in a force – fitted manner along the straight section (See col.2, lines 47 – 60).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to have modified the apparatus for molding plastic article with easy shape of Erb ('863) and/or Gercke ('361) by incorporating the tensioning device as suggested by Olschewski ('875) because such a coincident alignment is useful for keeping the steel belt surrounding the roller permanently under tension and also increasing tension of the steel belt guided around the rollers at particular point (See col.1 lines 55 – 63).

Claims 17 – 18, and 22 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erb ('863) and/or Gercke ('631) in view of Lemelson (U S Patent No. 3,557,407).

Erb ('863) and/or Gercke ('361) disclose all structural limitation as discussed above, but do not disclose material for manufacturing the plate.

As to claims 17 – 18, and 22 – 25, in the analogous art, Lemelson ('407) discloses the temperature of the shaping strips (5) and/or the adjusted roll (18, and 43) is controllable (See col.5, lines 10 – 12). It also discloses the sheet, which is made of the material such as polyethylene or the like (See col.3 line 3). It further teaches that the sheet is fed to the roll (15 – 17) and endless conveyor which cooperating in forming the homogeneous sheet (See col.4 lines 16 – 26). The sheet forming apparatus comprises thermoplastic material per se, or a lamination of thermoplastic material and another material such as fabric, non-woven fabric, metal, and/or plastic film as an additives along the roll and the circulating device to form the sheet (See col.4, lines 16 – 20).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the apparatus for molding plastic article with easy shape of Erb ('863) and/or Gercke ('361) by incorporating the plastic made of material such as polyethylene as suggested by Lemelson ('407) because such an

alignment is improving the physical characteristic of the material which are deformable or may be rendered deformable in a manner to permit portions of the surface stratum thereof to be virtually lifted away from the surface without complete detachment therefrom to provide a plurality of surface formation which may vary in shape from filamentary formations to cantilevered fingers or barbs (See col.1, lines 63 – 69).

Claims 19 – 21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erb ('863) and/or Gercke ('631) in view of Prix et al. (U S Patent No. 6,495,214 B1)

Erb ('863) and/or Gercke ('361) disclose all structural limitation as discussed above, but do not disclose the position of the roller during the formation of the plate.

As to claims 19 – 21, and 26, Prix et al. ('214 B1) discloses the method and apparatus for producing the film or a layer with the surface structure on both side which comprises the first and second roller with the circumferential structure, the roller being driven in approximately equally fast, but the opposite rotation that means the roller is pivotable in two position, and the film or the layer being produce in such manner that the film can be supplied to the roll in both positions (See col.1 lines 9 – 18). It also teaches that the layer with a surface structure at

Art Unit: 1722

least one side, on the other side, in register with the surface structure, a structural or 2-dimensional pattern, operate with the second device which is arranged with respect to the first device that resulting the product with pattern on both sides (See abstract, and col.2 lines 28 – 33). It also discloses that the second roll has a profile or a pattern, which is transferred to the base film (See col.2 lines 64 – 67 through col.3 lines 1 – 5).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the apparatus for molding plastic article with easy shape of Erb ('863) and/or Gercke ('361) by incorporating the position of the roller during the formation of the plate as suggested by Prix et al. ('214 B1) because such an alignment is supporting the device for manufacturing the film with a surface structure on both sides (See abstract).

Allowable Subject Matter

Claim 28 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach or suggest the plastic powder application device for formation of the plastic plate. The closest prior art of Erb (U S Patent No. 3, 594, 863), Gercke et al. (U S Patent No. 2,974,361), Olschewski (U S Patent No. 3,782,875), Lemelson (U S Patent No. 3,557,407), and Prix et al. (U S Patent No. 6,495,214 B1) are described above. These references do not teach or suggest the plastic powder application device for formation of the plate by using the intrinsic energy for achieving an adhesion of the powder to the plate.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art of Erb (U S Patent No. 3, 594, 863), Gercke et al. (U S Patent No. 2,974,361), Olschewski (U S Patent No. 3,782,875), Lemelson (U S Patent No. 3,557,407), and Prix et al. (U S Patent No. 6,495,214 B1) are described above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dimple N. Bodawala whose telephone number is (571) 272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


YOGENDRA N. GUPTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

DNB